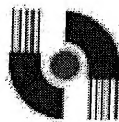


MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 1, 2017/2018

### BIE2024–INTERMEDIATE MICROECONOMICS

(All Section/Group)

21 OCTOBER 2017  
9.00 a.m. - 11.00 a.m.  
(2 Hours)

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#### INSTRUCTIONS TO STUDENTS

1. This Question paper consists of **THREE (3)** pages excluding cover page with **FOUR (4)** questions only.
2. Attempt **ALL FOUR (4)** questions. The distribution of the marks for each question is given.
3. Please write all your answer in the Answer Booklet provided.

**Question 1 (25 marks)**

- (a) Discuss the utility-maximizing choices for any **THREE (3)** special types of good. Show your appropriate utility maximization graph for each type of good. (15 marks)

- (b) "The net effect of a price decrease on quantity purchased is increased for normal goods."

Discuss the above statement with appropriate graph based on income and substitute effects. (10 marks)

**Question 2 (25 marks)**

- (a) Draw a graph showing the short-run average total, average variable and marginal cost curves for a typical firm. In that single graph, draw in three prices that result in the firm making positive profits, break even and making negative profit that are less than fixed costs. (5 marks)

- (b) A monopolist can produce at constant average and marginal costs of  $AC=MC=5$ . The firm faces a market demand curve given by  $Q=53-P$ . The monopolist's marginal revenue curve is given by  $MR=53-2Q$ .

- i. Calculate the profit-maximizing price-quantity combination for the monopolist. (4 marks)
- ii. Calculate the monopolist profits and consumer surplus. (7 marks)
- iii. What output level would be produced by this industry under perfect competition? (4 marks)
- iv. What is the value of deadweight loss from monopolization? (5 marks)

**Continued...**

**Question 3 (25 marks)**

- (a) The **Exhibit 1** shows the payoffs to two airlines, A and B, of serving a particular route.

**Exhibit 1**

		Firm B	
		Enter	Do Not Enter
Firm A	Enter	10, -20	50, 0
	Do Not Enter	0, 40	0, 0

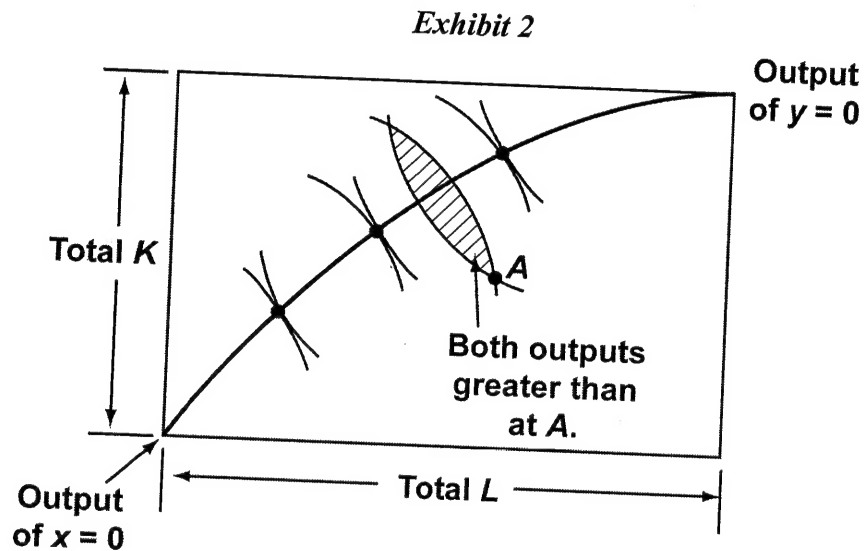
- i. Is there a Nash equilibrium? (4 marks)
  - ii. Based on your answer in part (i), explain your answer for firm A and firm B. (6 marks)
- (b) Suppose the demand for Pepsi-Cola is  $q_p = 54 - 2p_p + 1p_c$ . The demand for Coca-Cola is  $q_c = 54 - 2p_c + 1p_p$ . Each firm faces a constant marginal cost of zero.
- i. Define the Bertrand model. (3 marks)
  - ii. Determine the Bertrand equilibrium prices. (6 marks)
  - iii. What happens to the Bertrand equilibrium prices and profits if increased differentiation causes the demand for Pepsi-Cola to become  $q_p = 104 - 2p_p + 1p_c$  while the demand for Coca-Cola remains unchanged? (6 marks)

Continued...

**Question 4 (25 marks)**

(a) Explain how the Coase theorem would apply to a factory polluting a stream and a spring water producer located downstream. (10 marks)

(b) The Edgeworth box diagram (**Exhibit 2**) below is used to show how a production possibility frontier is constructed for an economy as a whole. Suppose there are only two goods that might be produced ( $X$  and  $Y$ ), each using two inputs, capital ( $K$ ) and labour ( $L$ ). According to Exhibit 2, the lower-left (upper-right) corner of the box to be origin for the isoquant map for good  $X$  ( $Y$ ). What are the efficient points in the Edgeworth box diagram? Elaborate with reference to the diagram. (15 marks)



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